3.0 DOMAIN SPECIFIC PRODUCTS—BASELINE ASA

3.1 Financial Systems Assessment

Reference: 'Strategic Assessment of EPA's Financial Systems - Current Systems Description', dated 21 February 2002.

The information contained in this section is drawn directly from the above referenced document. To reduce redundancy, only the general findings are provided in this report. For details of the analysis that form the basis for these finding, please see the referenced document.

3.1.1 Financial Systems Assessment Overview

Since its implementation in 1989, the Integrated Financial Management System (IFMS) has been EPA's core financial management and budget execution system. IFMS is a legacy mainframe system based on the Federal Financial System (FFS), commercial off the shelf (COTS) software. Over the past decade, new requirements and demands have been placed on EPA's financial systems; however, the implementation of these changes has been costly both in time and resources. When IFMS was unable to accommodate EPA's needs, new systems were developed to track or house information. The result is a partially integrated system made up of 14 systems owned by OCFO that support strategic planning, annual planning and budgeting, financial management and services, and accountability functions.

Recognizing the need to address its financial systems, EPA tasked Booz Allen to assess the current financial system environment, to identify opportunities for improvement and to provide recommendations for the future of its financial systems architecture. This effort was coordinated with the Agency's Administrative System Architecture (ASA) workgroup. This workgroup is developing an overall architecture for EPA administrative systems, of which the financial system architecture is a subset.

The data gathering exercise and subsequent structured analysis yielded valuable information to characterize the strengths and weaknesses of the 14 systems under study, which are presented in Section 3. Additionally, overarching themes for OCFO's financial systems were drawn from an analysis of the functional and system findings. These themes include:

- Disparate Data Sources (Multiple Systems) for Day-to-Day Work
- Inconsistent Data Fields and Edits
- Limited System Interoperability
- Information Latency
- Proliferation of Reporting Systems Creating Data Retrieval and Reporting Issues
- Centralized Core Financial System

- High System Availability
- Low System Usability
- Costly Maintainability of Systems
- Inconsistent Training and Communication Across the Agency
- Consensus-based Decisions Complicate and Slow Change in EPA

The examination of the current systems also yield a list of functional issues that have a significant impact on the performance of EPA's four financial business functions.

- EPA could benefit greatly from the full implementation and acceptance of managerial costaccounting. The Agency is a leader in the federal government in this area althoughimprovements are necessary.
- Currently there is no clear guidance or training promulgated and disseminated by EPA tostakeholders on the development of EPA annual performance goals (APGs), annualperformance measures (APMs), and the strategic plan. The lack of clear, specific, andadequately disseminated guidance hampers the effective and efficient performance of thisprocess and can adversely impact subsequent managerial decision-making.
- The EPA headquarters does not have a fully integrated budget process with the regional offices. The regions believe that they are not given adequate time to review headquarters decisions and provide any useful feedback.
- EPA training, professional development, and recruiting strategies are not adequatelyaddressing the appropriate staffing needs particularly in support of Budgeting; StrategicPlanning; and Accounting, including Cost Accounting.
- Managing the Working Capital Fund– Accurately recording Working Capital Fund data in the core financial system is problematic. The EPA has formed teams and has created work plans with key objectives and milestones to improve the Working Capital Fund accounting functions and financial reporting processes.
- Currently SCORPIOS does not match the cost related collections information to aspecific site impacting the quality of information and ultimately managerial decision-making.
- Timeliness of Financial Statement Closing needs improvement to enable the Agency tosubmit audited financial statements in compliance with new tighter deadlines.
- Inconsistent Use of Accounting Code Classifications ultimately results in an inability toreport financial management data to the EPA stakeholder offices, particularly programoffices, in a useful way that they can understand.

Lastly, through the documentation of the specific system's strengths and weaknesses, findings fell within various key areas. These key areas can be expressed in terms of capabilities desired by process performers, managers, customers and system administrators as follows:

- Easy access to data
- Reporting flexibility

- Automated functional capabilities
- Accurate and appropriate data for effective managerial decision-making
- Flexible organization, accounting and budget structures
- Effective integration between systems
- Ease of use
- Stable and secure operating environment
- Complete and flexible data architecture

3.1.2 Financial Systems Specific Functional Findings

This section presents brief descriptions of the functional issues that have a significant impact on the performance of EPA's four financial business functions and their multiple processes. These functional issues relate to:

- Implementation of Managerial Cost Accounting
- Defining and Tracking Performance Measures
- Regional Involvement and Communication in the EPA Formulate Budget Process
- Staffing Needs
- Managing the Working Capital Fund
- The Matching Principle (Revenue to Expenses) in SCORPIOS
- Timeliness of Financial Statement Closing Process
- Use of Accounting Code Classifications for Multiple Functions

The remainder of this section presents brief descriptions of these issues.

Implementation of Managerial Cost Accounting

EPA could benefit greatly from the full implementation and acceptance of managerial cost accounting. Unlike core cost accounting, which merely requires establishing a standard core cost structure and then performing cost recognition, cost accumulation, and cost distribution; managerial cost accounting integrates distributed cost data from core cost accounting with non-financial data. This provides for rich managerial cost analysis and for the subsequent effective performance of financial management analysis and managerial decision-making.

This non-financial data enables (1) determining the full cost of its activities, (2) accumulating and reporting on a regular basis the cost of activities for management information and other stakeholder purposes, and (3) using appropriate costing methodologies to accumulate and assign costs to outputs. According to the EPA Office of Inspector General, EPA is not fully in compliance with FASAB #4 as it does not produce or utilize cost per outcomes. FASAB #4 is the

accounting standard promulgated by the Federal Accounting Standards Advisory Board, which covers the implementation of managerial cost accounting in the federal government.

Although the cost accounting structure at EPA does not currently support the recognition and tracking of cost by outcomes, the EPA was only one of three agencies in the federal government to receive a yellow rating on the President's Management Agenda (PMA) scorecard for the category of Budget and Performance Integration. This demonstrates EPA's progress toward full costing by outcomes. All other agencies received red ratings in this category.

Furthermore a complication for EPA and other federal agencies is Congress has yet to embrace the concept of budgeting by activity or outcome. Congress requests budget justifications the traditional way – by program and resource (i.e. personnel, supplies, equipment, etc.) - creating a paradox for agencies moving toward budget structures aligned to performance. To satisfy appropriators' requests and the PMA, agencies must develop their budgets using two separate and distinct approaches.

Defining and Tracking Performance Measures

EPA has made significant progress over the past few years in strengthening results-based management, including development of a goal-based budget and planning and accountability functions to support it. Yet unique challenges remain for EPA. EPA has difficulty in tracking and recording the performance measures of many environmentally based measures as the work necessary to meet the goals is performed by states, tribes, localities, and other federal agencies. This removes EPA's control over the expenditure of its resources to some extent.

Other complexities include the fact measuring and matching an input with its corresponding output and outcome in the same fiscal year can be difficult. For example, a Superfund cleanup can take ten years, so an output or an outcome toward the end of the process does not reflect the resources spent in that same year. Also there is little consistency in gathering performance data. Essentially the data that is used is whatever data is available, and the states and other third parties do not necessarily track data consistently. For example, many states operate on a different fiscal year cycle than does EPA.

EPA staff that are involved in the development of annual performance goals (APGs), annual performance measures (APMs), and the strategic plan feel these processes lack clear direction. The lack of clear, specific, and adequately disseminated guidance hampers the effective and efficient performance of this process and can adversely impact subsequent managerial decision-making.

Regional Involvement and Communication in the EPA Formulate Budget Process

The EPA headquarters does not have a fully integrated budget process with the regional offices. The regions believe that they are not given adequate time to review headquarters decisions and provide any useful feedback.

The regions also feel that there is a lack of clear direction and communication of timeframes and deadlines. Yet the length, the urgency, and the demands of the current budget cycle are both time and labor intensive. Under the current process, the regions feel that they are put in a position that does not allow them the flexibility to plan or to proactively provide an efficient allocation of resources to meet the demands of the budget process and pressing programmatic needs. The potential exists that regional budget requests may not be as well-thought out or submitted timely enough to be given proper consideration.

There is a lack of coordination in the process in that the EPA media (i.e. Air, Water, etc.) offices at headquarters all have differing deadlines, and do not issue their budgets at the same time. This causes confusion among the regions as it is not clear what their total budgets will be until the process for all media is completed.

In addition, there also is a problem of coordination and consistency between the regions and the NPMs. It has been reported that once the regions receive their operating plan from headquarters, they typically reprogram it to allocate resources to where they feel their regional priorities are. Regional priorities are often different from the priorities set by the NPM.

Staffing Needs

EPA training, professional development, and recruiting strategies are not adequately supporting the performance of certain financial management functions. These functions include Formulate Budget; Execute Budget; Manage Strategic Plan; Perform Core Financial Management; and Manage Costs.

Formulate Budget—Focus group participants reported that EPA headquarters budget staff are in need of training at multiple levels - for managers, subject matter experts, and systems personnel. EPA regions are not adequately staffed nor do they have the right mix of skills for formulating the budget. The regions need staff that can look behind the numbers and provide analytical review and input to this process.

Execute Budget—EPA regional budget personnel have difficulty in fully understanding and in appropriately using the EPA accounting classification structure. Typically they must contact EPA National Program Managers (NPMs) to complement their understanding of what is an extensive tracking of expenses at a very detailed level, as is often required in the regions. Having to rely on a handful of NPMs for what should be a routine task, but is instead an inefficient, time and labor intensive one, warrants investigation.

Manage the Strategic Plan—EPA program and regional offices report that they are not appropriately staffed to support strategic planning and the concept of "managing for results." Strategic planning and results-based management are relatively new to the federal government require a specialized background/skill mix in performance planning, performance measures, performance reporting, and GPRA. Functional knowledge coupled with a working knowledge of

EPA programs (i.e.; Air, Water, etc.) is essential to ensure effective and efficient planning for the Agency.

Perform Core Financial Management and Manage Costs—EPA focus group participants reported that there needs to be a focus on improved staffing/training in the areas of Perform Core Financial Management and Manage Costs. Both of these areas are relatively complex, in particular, cost accounting, which has become more sophisticated in the last few years. Focus group participants noted that there is a limited understanding of cost accounting at EPA and potentially little incentive for managers to effectively manage their costs outside of the Working Capital Fund. As new technology and federal regulations have evolved, the skill mix of EPA staff has not kept pace. A strong understanding of current federal regulations such as GPRA, FASAB #4, and other results-based initiatives is required for those in financial positions as well as managers responsible for the effective use of resources.

Manage the Working Capital Fund

EPA's Office of Administration provides postage services and the Office of Technology, Operations, and Planning (OTOP) provides Agency wide services for telecommunications, mainframe computer services, and other Information Technology support. Since FY 1997, these activities have been financed by charges to Agency customers through a Working Capital Fund. The Working Capital Fund was established and began operations in 1997. Its primary business principle is to recover full operating costs through the establishment and application of billing rates.

Accurately recording Working Capital Fund data in IFMS is problematic. EPA has formed work teams and has identified root causes of many of the current process problems. These process problems stem from lack of documented processes and procedures for recording costs and correcting erroneous transactions. This leads to data entry errors, the inaccurate recording of service costs to the correct service, and an inadequate understanding of Working Capital Fund data entry transaction points. As an example, incorrect accounting classification data on purchase documents can prohibit the proper assignment and recognition of costs incurred and, therefore, billed. As a result, problems recognizing revenue are created. Lack of procedures also contributes to delays in generating cost, allowance, fund balance and revenue reports necessary to manage the Working Capital Fund business operation and predict future revenues and costs.

The Matching Principle (Revenue to Expense) in SCORPIOS

The SCORPIOS system, the Superfund Cost Recovery Package and Image On-Line System, was implemented to maximize efficiency in maintaining and storing accurate Superfund sitespecific accounting data. However, currently SCORPIOS does not match the cost related collections information to a specific site. Core cost accounting requires the establishment of a standard core cost structure, and then performing the tasks of cost recognition, cost accumulation, and cost distribution. In addition, generally accepted accounting principles require the matching of revenue to corresponding recognized cost, or expense. Currently a manual process exists where one must

look up the fund and the site project field in IFMS to find the cost related collections information, and then manually enter it into SCORPIOS.

Matching costs to a specific Superfund site is one part of the task, yet not matching corresponding receipts or revenue with the corresponding site costs impacts the quality of financial management analysis, financial statement accuracy, and ultimately managerial decision making.

Timeliness of Financial Statement Closing Process

EPA staff involved in the process for preparing financial statements agree the process needs improvement to enable the Agency to submit audited financial statements by March 1 of each year. Currently, the process of closing its financial statements is cumbersome, time consuming, and prone to errors. EPA currently performs the adjustments that are required for accrual accounting one-time at the end of the year rather than periodically throughout the year. It is during this period that EPA obtains estimates of performance from both contractors, and grantee and adjustments are performed manually, contributing to the process's length and significant resource demands.

In addition, there are perpetual imbalances with Treasury for SF 224 data and FACTS reporting data. The imbalances occur because a manual process and offline system is used to generate the SF 224 report and record adjustments. While FACTS reporting is accomplished automatically, adjustments are made manually. Automatic generation of these report submissions, in balance with Treasury, would allow for the redeployment of resources to other, value-added activities.

Use of Codes Inconsistently and for Multiple Purposes

Currently much of EPA's accounting transactional data is not linked to its original source document, or its document control number (DCN) in IFMS. The DCN is a unique data element that ties accounting transactional data to its source document throughout the entire life of the transaction. There is an inconsistency among analysts at the Cincinnati, Las Vegas, Research Triangle Park, and Washington financial management centers regarding the use of the DCN. The DCN is usually present at the beginning of financial events, or the commitment phase, yet at the obligation phase some financial management center analysts are omitting this important field. This ultimately results in an inability to report financial management data to the EPA stakeholder offices, particularly program offices, easily and in a useful way that they can understand.

For example, MARS manipulates IFMS information to provide program office information not easily accessible within IFMS. Much of MARS manipulation revolves around the gathering of data by the Document Control Number (DCN) structure created by the program offices. The DCN provides the linkage of the financial data to a recognizable first document in the spending chain. While IFMS offers referencing between subsequent stages in the spending chain, often this chain must be severed for special EPA obligations of Superfund related to site accounting. In this

instance, the differing budgetary accounting and cost accounting needs create a serious information gap and make reconciliation difficult.

EPA uses certain dimensions of its accounting classification code to track multiple types of data. The use of the site/project field of the 41 digit accounting structure is used concurrently to track costs for different purposes such as IT, LUST, and Oil Spill cost tracking. These inconsistencies and discrepancies lead to data integrity and financial management reporting problems.

3.2 Acquisition Systems (SPEDI) Assessment

Reference: 'SPEDI Assessment - Baseline and Functional Requirements Report', dated 17 June 2002.

The information contained in this section is drawn directly from the above referenced document. To reduce redundancy, only the findings specific to Acquisition systems and processes are provided in this report. For details of the analysis that form the basis for these finding, please see the referenced document. Any additional architectural details contained in the Acquisition Systems Assessment, however, have been incorporated into the ASA and are included in the analysis and findings contained in this baseline ASA document.

3.2.1 Overview

- Customers cited opportunities for improvement for acquisition systems, especially around integration and access to acquisition information
- While many of the activities for simplified acquisitions, large contracts, and purchase card transactions are similar, they are supported by discrete and non-integrated systems
- Several inconsistencies exist between industry best practices and the current acquisition processes used at EPA
- In its' current state, SPEDI does not meet many of the basic needs of the simplified acquisition process
- ICMS is the primary system supporting the large contract process
- ICMS provides much of the core functionality required for generating and managing large contracts but does not support the end-to-end process
- while EPA's acquisition systems provide many required capabilities, the systems lack web-enabled, collaborative tools that would allow users to complete the end-to-end acquisition process within a single application
- Acquisition systems are built on various platforms and databases and utilize several development products
- Each acquisition system has been developed independently, without cross-functonal coordination; integration between systems is limited
- A process oriented security and information assurance infrastructure for epa allows for adequate monitoring and detection of intrusions and other security concerns

3.2.2 Findings

A. The organization baseline identified two critical needs: a clear and consistent vision for acquisition systems and a steering board to "champion" systems modernization at EPA

- No formal vision for acquisition systems has been developed and communicated to stakeholders
  - A clear and consistent vision for acquisition systems needs to be developed in conjunction with various stakeholders of the acquisition community
- Acquisition community stakeholders have many similarities in vision for acquisition systems
  - Similarities in vision include a web-based system that provides end-to-end functionality, real time access to all acquisition data from one source, and full integration with financial systems
- Several existing organizational bodies within EPA have a stake in acquisition systems; however, no cross-functional stakeholder group is coordinating an agency-wide vision for acquisition systems
  - A cross-functional Steering Board that includes representatives from EPA Program Offices is required to "champion" the vision for acquisition systems
- Procurement teams are not organized in a manner to drive maximum efficiencies and savings out of advanced procurement technologies and through strategic sourcing
  - Only two service centers specialize and focus on specific commodity areas (IRM and Construction and A&E)

B. The functional baseline highlighted the need for end-to-end process automation, better access to acquisition related data for planning and sourcing, and full integration with financial systems

- While significant portions of acquisition processes are automated, none of the processes are fully automated or standardized
  - The Simplified Acquisition Process has many manual touch points, especially in the area of requisitioning, financial transactions, and ad hoc reporting
  - While processes are standardized across EPA in many areas, many inconsistencies exist where process automation is lacking or systems are not completely integrated
- Lack of access to consolidated, real-time acquisition data hinders effective decision making, planning and performance measurement
  - Acquisition data exists across various applications in disparate databases
  - Data across applications is stored in different formats, making it difficult to consolidate and obtain a complete view of acquisition activity across EPA
  - Due to the unavailability of enterprise-wide data, advanced acquisition planning is limited and used sparingly for resource planning

  - No formal process for strategic sourcing exists nor is there sufficient data available for conducting strategic sourcing activities
- EPA funds commitment process is not standard and does not support commitment accounting as recommended by JFMIP
  - Lack of complete integration with financial systems compromises financial controls and accounting; Reconciliation of financial data is difficult and cumbersome
  - Commitment and obligations are often performed manually and can be changed after entry

C. The technology baseline highlights the use of custom developed acquisition applications, with limited integration, and limited ability to address the end-to-end acquisition process

- EPA acquisition systems are custom developed and based on various platforms and databases
  - Each EPA acquisition system has been developed independently, without cross-functional coordination
  - Acquisition systems have multiple installations, and are built on various platforms and databases which results in increased maintenance and labor costs
  - Some nodes in the EPA Network Backbone have transmission speeds of only 9.6k to 19.4k
  - Acquisition system users often use and/or interact with several applications to complete the full acquisition process
  - Multiple systems, which are used by customers, often overlap in functionality and accomplish the same activities
  - Multiple systems, each with multiple installations and varying data schemas and formats, make consolidation of acquisition data difficult and increases operating costs
- In its current state, SPEDI does not meet many of the basic needs of the simplified acquisition process
  - The lack of a requisitioning module necessitates the use of additional applications (e.g. eForms) which are not available to all EPA users
  - Does not comply with FPDS reporting requirements and does not provide consolidated data for management use
  - Capabilities for document generation, including a clause module, do not sufficiently support users
- Other acquisition systems, such as ICMS and POI, extend acquisition functionality, but still do not provide full end-to-end capabilities to users